

## MANUFACTURE OF SEPARATOR WITH GROOVES FOR FUEL CELL

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### Abstract

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**PURPOSE:** To obtain a separator with grooves for fuel cell whose expansion graphite filling ability to ribs is high and non-permeability is good by stacking expansion graphite sheets prepared by press-molding expansion graphite having different expansion rates, and press-molding them.

**CONSTITUTION:** A high-expansion graphite sheet is preferably prepared by continuously press-molding expansion graphite having an expansion rate of 100- 500 times with a roller. A low-expansion graphite sheet is preferably prepared by continuously press-molding expansion graphite having an expansion rate of 5- 50 times with a roller. To mold a separator, low expansion sheets 2 are arranged on both sides of a high-expansion graphite sheet 1, or after low-expansion sheets are arranged on both sides of a high-expansion graphite sheet, high-expansion graphite sheets are arranged outside the low-expansion sheets. These stacked expansion graphite sheets are placed into a die and pressed at a pressure of 150-600kg/cm<sup>2</sup> with a punch having grooves to mold a separator with grooves.

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